



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/655,944

09/04/2003

Tong Xie

10030169-1

7022

57299

7590

06/21/2007

Kathy Manke

Avago Technologies Limited

4380 Ziegler Road

Fort Collins, CO 80525

EXAMINER

ALSOMIRI, ISAM A

ART UNIT

PAPER NUMBER

3662

MAIL DATE

DELIVERY MODE

06/21/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/655,944	Applicant(s) XIE ET AL.	
	Examiner Isam Alsomiri	Art Unit 3662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 April 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 26-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 26-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 26-45 are rejected under 35 U.S.C. 102(b) as being anticipated by Murakami et al US005148016A. Referring to claims 26, 38 and 43, Murakami discloses in figure 1b a system for determining a position of a target, comprising: a processing unit; the target (112, 110), the target being reflective and moveable; a first light source (122), a first light beam splitter (124), a first light beam steering device (126) and a first light detector (128), the first light source being configured to emit a first light beam towards the first light beam splitter, the first light beam splitter being configured to reflect the first light beam emitted by the first light source towards the first light beam steering device, the first light beam steering device being configured, under control of the processing unit (col. 23 line 63), to sweep the first light beam over a first full angular range and a first limited angular range, the target being configured to reflect the first light beam reflected from the first light beam steering device back towards the first light beam steering device for reflection therefrom as a first target reflected beam and thence towards and through the first light beam splitter to the first light detector for detection thereby (the first full angular range is also a first limited range as shown in figure 1b);

a second light source (121), a second light beam splitter (123), a second light beam steering device (125) and a second light detector (127), the second light source being configured to emit a second light beam towards the second light beam splitter, the second beam splitter being configured to reflect the second light beam emitted by the second light source towards the second light beam steering device, the second light beam steering device being configured, under control of the processing unit (col. 23 line 63), to sweep the second light beam over a second full angular range and a second limited angular range, the target being configured to reflect the second light beam reflected from the second light beam steering device back towards the second light beam steering device for reflection therefrom as a second target reflected beam and thence towards and through the second light beam splitter to the second tight detector for detection thereby (also the second full range is also the second limited range);

wherein the processing unit is operably connected to the first and second light beam steering devices and configured to cause: (a) the first light beam steering unit to sweep through the first full angular range until the target is detected as a result of the first target reflected beam being reflected into the first light detector; (b) the second light beam steering unit to sweep through the second full angular range until the target is detected by the second target reflected beam being reflected into the second light detector; (c) the first light beam steering device to sweep through the first limited angular range in response to the first target reflected beam being detected by the first light detector; and (d) the second light beam steering device to sweep through the

second limited angular range in response to the second target reflected beam being detected by the second light detector (see figure 1b, Abstract, and col. 2:25-49).

Referring to claim 27, the processing unit is configured to determine the position of the target on the basis of the first limited angular range and a first angular position associated therewith, and the second angular limited range and a second angular position associated therewith (see figure 1b, Abstract, and col. 2:25-49, col. 3:16-19, col. 9:16-28).

Referring to claim 28, the processing unit is configured to determine an absolute position of the target based on the first limited angular range and a first angular position associated therewith, and the second angular limited range and a second angular position associated therewith (see figure 1b, Abstract, and col. 2:25-49, col. 3:16-19, col. 9:16-28).

Referring to claims 29-30 and 39-40, it's inherent the first or second beam steering device is configured to dither about the position of the target after the first limited angular range has been swept through a first time to be able to track the target or cursor.

Referring to claims 31 and 41, the first beam steering device is configured to resume sweeping through the first full angular range after the target is no longer detected by the system (see figure 1b, Abstract, and col. 2:25-49, col. 3:16-19, col. 9:16-28).

Referring to claims 32 and 42, the second beam steering device is configured to resume sweeping through the second full angular range after the target is no longer

detected by the system (see figure 1b, Abstract, and col. 2:25-49, col. 3:16-19, col. 9:16-28).

Referring to claim 33, the target includes a retro-reflecting surface (see Abstract).

Referring to claims 34, the first light beam steering device and the second light beam steering device are scanning mirror beam steering device (col. 5:65 to col. 6:1).

Referring to claim 35, the first light beam and the second light beam are each generated semiconductor laser technology-based light source (col. 6:15-16).

Referring to claims 36 and 44, further comprising means for enabling a cursor in a computer to be controlled according to the position of the target (col. 8:49-50).

Referring to claims 37 and 45, further comprising means for inputting data representative of the position of the target (col. 1:13-22).

Response to Arguments

Applicant's arguments filed April 8, 2007 have been fully considered but they are not persuasive. Regarding claims 26-45, applicant argues that the amended claims include the distinct limitations of having a "first full angular range" and "first limited angular range" and similarly "second full angular range" and "second limited angular range" are not found or disclosed in any way by the Murakami reference. In response: Since the claims do not distinguish between the full angular range or the limited angular range; it has been read broadly to be the same. Murakami teaches a scanning unit that scan in the maximum full angular range of the system, which also can be interpreted as being limited. Therefore, it appears that applicant argument is not commensurate with

Art Unit: 3662

the broad scope of the amended claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Isam Alsomiri whose telephone number is 571-272-6970. The examiner can normally be reached on Monday-Friday 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Tarcza can be reached on 571-272-6979. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/655,944

Page 7

Art Unit: 3662

Isam Alsomiri

A handwritten signature in black ink, appearing to read 'Isam Alsomiri', with a large, stylized flourish extending to the right.

June 10, 2007